

What is claimed is:

1. A master system panel, comprising:
an analog audio signal transmitter;
a digital signal transceiver; and
a command execution facility comprising a processor, wherein said command execution facility is capable of accepting and executing a command received via said transceiver.
2. The master system panel of claim 1, further comprising:
a set of software to control said command execution facility.
3. The master system panel of claim 1, further comprising:
an audio input port;
an audio amplifier; and
an audio output port.
4. The master system panel of claim 1, wherein said command execution facility further comprises nonvolatile data storage.
5. The master system panel of claim 1, further comprising:
a capability for manual input to the master system panel of at least one instruction;
an instruction to suspend normal operation;
a command execution facility for externally applied commands following suspension of normal master system panel operation; and
a command execution facility for normal operation following reception of an externally applied command to resume normal operation.

6. A programmable speaker amplifier control system, comprising:
a master system panel comprising:
an analog audio signal transmitter;
a digital signal transceiver; and
a command execution facility comprising a processor, wherein said command execution facility is capable of accepting and executing a command received via said transceiver;
a speaker amplifier; and
a communication subsystem interconnecting said master system panel and said speaker amplifier.
7. The programmable speaker amplifier system of claim 6, further comprising a set of commands to accept system panel configuration instructions by way of said communication subsystem.
8. The programmable speaker amplifier system of claim 6, wherein said software further comprises a set of commands to control at least one digitally enabled speaker amplifier.
9. The programmable speaker amplifier system of claim 6, further comprising a command to define the state of a relay that is an integral part of a speaker amplifier system element and bears an assignable unit number and device number.
10. The programmable speaker amplifier system of claim 6, further comprising at least one command to define the zone assignments for at least one digitally enabled speaker amplifier.

11. The programmable speaker amplifier system of claim 6, further comprising a command to assign a new address to a master system panel.
12. The programmable speaker amplifier system of claim 6, further comprising a command to define the master/satellite status of a speaker amplifier system panel.
13. The programmable speaker amplifier system of claim 6, further comprising a command to associate a control input switch closure line to a speaker amplifier system panel with a zone assignment.
14. The programmable speaker amplifier system of claim 6, further comprising a command to specify whether a speaker amplifier system panel is to operate in conjunction with a backup power source.
15. The programmable speaker amplifier system of claim 6, further comprising a command to acquire current contents of configuration memory in a speaker amplifier system panel.
16. The programmable speaker amplifier system of claim 6, further comprising a command to terminate external control, thereby restoring normal operation for the master system panel in a programmable speaker amplifier system.
17. The programmable speaker amplifier control system of claim 6, wherein said speaker amplifier further comprises:
 - an analog audio signal input port;
 - an amplifier to amplify signals impinging at said analog audio signal input port;
 - a power supply to convert electrical power from an available source to the form required for amplifier operation; and
 - a loudspeaker.

18. The programmable speaker amplifier system of claim 6, further comprising:
 - a digital communication input port;
 - a digital communication signal decoder;
 - a digital command interpreter;
 - a nonvolatile storage element; and
 - a digital reply generator.
19. The programmable speaker amplifier system of claim 6, further comprising:
 - an electronic switch under the control of said digital command interpreter; and
 - an electrical interconnect circuit permitting establishment and interruption of the signal path from said analog audio signal input port to said loudspeaker.
20. The programmable speaker amplifier system of claim 6, further comprising:
 - a first transceiver in said master system panel; and
 - a second transceiver in said speaker amplifier, capable of establishing bidirectional communication with said first transceiver.
21. The programmable speaker amplifier system of claim 6, further comprising a satellite system panel under the control of said master system panel.
22. The programmable speaker amplifier system of claim 6, further comprising a booster extending the physical and electrical range of said first transceiver.
23. The programmable speaker amplifier system of claim 6, wherein said communications subsystem further comprises an RS-485 bidirectional differential serial communications port and associated interface electronics.

24. The programmable speaker amplifier system of claim 6, wherein said communications subsystem further comprises an IEEE 802.3 Ethernet® bidirectional serial communications port and associated interface electronics.

25. A programmable speaker amplifier control system, comprising:
processing means for processing electronic signals;
communicating means for communicating between said processing means and a digitally enabled speaker amplifier; and
configuring means for configuring said processing means in response to externally applied signals.

26. The programmable speaker amplifier control system of claim 25, further comprising:
interrogating means for interrogating said digitally enabled speaker amplifier by an interrogation routine.

27. The programmable speaker amplifier control system of claim 25, further comprising:
recovering means for recovering system configuration information from automated records of the status of a system panel maintained in nonvolatile storage media.

28. A process for configuring a speaker amplifier system, comprising the steps of:
communicating between an external signal source and a system panel; and
configuring a system panel.

29. The process for configuring a speaker amplifier system of claim 28, further comprising the steps of:

interrogating a system panel with a command that causes the interrogated system panel to respond to the command by transmitting a report of its configuration; and

reading the response of a system panel so interrogated.

30. The process for configuring a speaker amplifier system of claim 28, further comprising the steps of:

displaying the response of a system panel to interrogation; and
storing the response of a system panel so interrogated.